

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

MEARS TECHNOLOGIES, INC.,	§	
	§	Civil Action No. 2:14-cv-938-JRG
Plaintiff,	§	LEAD CONSOLIDATED CASE
	§	
v.	§	
	§	
AT&T CORP.,	§	
VERIZON SERVICES CORP.	§	2:14-cv-937-JRG

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**PLAINTIFF’S OPENING CLAIM CONSTRUCTION BRIEF**

**I. An Introduction to the Patent in Suit**

Mears asserts that Verizon has infringed U.S. Patent Nos. 6,141,361 (“the ‘361 patent”) [Ex. A]. In general terms, this patent is directed to the separation, or “dispersion,” of wavelengths of light such that each wavelength may serve as a channel for the transmission of data. More specifically, the invention is “a tunable optical wavelength selective filter” comprising “a dynamic holographic diffraction element in combination with a fixed diffraction grating or hologram.” ‘361 Patent [Ex. A], col. 1, lines 46-49.

**II. The proper construction of the disputed terms**

**A. The Law of Claim Construction**

It is understood that “[a] claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the protected invention.” *Vertical Computer Sys. v. Interwoven, Inc.*, 2013 U.S. Dist. LEXIS 131719 at \*6 (E.D. Tex. Sept. 16, 2013) (Gilstrap, J.) (citation omitted). To ascertain the meaning of claims, courts look to three primary sources - the claims, the specification, and the prosecution history. *Id.* at \*6 (citation omitted). The words used in a claim are generally given their ordinary and customary meaning. *Id.* at \*8 (citation omitted). The ordinary and customary meaning of a

claim term “is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* (citation omitted).

The specification may act as a dictionary that may define terms used in the claims. *Id.* at \*6-7 (citation omitted). Nonetheless, it is the function of the claims, not the specification, to set forth the limits of the patentee's invention. *Id.* at \*7 (citation omitted). On that note, although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader than the embodiments. *Id.* at \*8.

“One purpose for examining the specification is to determine if the patentee has limited the scope of the claims.” *Id.* at \*7 (citation omitted). The patentee is free to be his own lexicographer, but any special definition given to a word must be clearly set forth in the specification. *Id.* (citation omitted).

The prosecution history plays an important role in claim interpretation, although it may lack the clarity of the specification and thus be less useful in claim construction proceedings. *Id.* at \*10. Finally, the evidence intrinsic to the patent (the claims, the specification, and the prosecution history) may not be sacrificed in favor of extrinsic evidence, *e.g.*, treatises and dictionaries. *Id.* at \*10-11.

## **B. The Disputed Terms of the ‘361 Patent**

The parties have identified three limitations from the ‘361 patent as disputed, and in need of construction by the Court. Representative claim 1 from the ‘361 patent is replicated below, with the disputed limitations highlighted:

A tunable filter for polychromatic optical radiation comprising an electronically programmable **spatial light modulator** for displaying computer generated

hologram patterns of data as a series combination of a **first** dynamically variable wavelength dispersive element, and a **second** static wavelength dispersive element.

The following represents Mears' position on the disputed claim language, and the bases therefor.

### **1. First and Second**

The independent claims of the '361 patent require a "first" and "second" wavelength dispersive element. The dispute between the parties is whether the limitations "first" and "second" are ordinal nature, *i.e.*, whether the "first" wavelength dispersive element must come before the "second." ECF Docket No. 44-2 at 1. The '361 patent makes clear that it does not:

The principle operation of the wavelength filter is the angular separation and selection of wavelengths using a coarse dynamic hologram 3 to tune onto a highly wavelength dispersive, fixed hologram 2 (*although the sequence of the dynamic hologram 3 and fixed hologram 2 may be reversed*).

'361 Patent, col. 3, lines 44-49 (emphasis added).

The '361 patent also specifies that "[t]he combination of a dynamic holographic diffraction element and a fixed holographic element may also be arranged *arbitrarily* to recombine various of the wavelengths in the output plane." *Id.*, col. 1, lines 61-64 (emphasis added).

In light of the foregoing, there is no requirement that the "first" element come before the "second." Putative language of order in a claim only mandates an actual order when there is a statement in the patent or the prosecution history indicates that the "order is important." *Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1365, 1371 (Fed. Cir. 2003). Here, the statements in the specification of the '361 patent are to the contrary – the order is expressly unimportant. It would, therefore, be error to require that the "first" and "second" wavelength dispersive elements appear in that order, as Verizon proposes. Rather, these limitations should be construed to mean "one" and "another of two or more," as Mears proposes.

## 2. *Spatial light modulator*

The third and final disputed limitation is “spatial light modulator.” Mears’ proposed construction is “an electronically programmable device that can modulate input light by controlling its amplitude only, phase only, or both, based on a specific spatial pattern displayed on the device.” In this particular case, Mears’ proposed construction is actually narrower than that proposed by Verizon, which is “an integrated unit on which appears computer-generated hologram programs of data.” ECF Docket No. 44-2 at 1.

Mears’ proposed construction is based upon the specification passage that reads:

Such devices are readily *controllable, typically via a computer to display one of a series of different holographic diffraction patterns*. Typically such holograms are 2-dimensional *optical phase and/or amplitude gratings which produce a controllable deviation and dispersion of the incident light* but which can also be arranged to control optical fan-out and fan-in operations, to generate multiple output beams by splitting the input beams into two or more such output beams, and *to deflect the input beams in two dimensions rather than one*.

‘361 Patent, col. 2, lines 9-18 (emphasis added).

The defendants’ proposed construction lacks several of the features described in the foregoing specification passage. Rather, the defendants rely extensively upon less reliable extrinsic evidence to define this term. ECF Docket No. 44-2 at 2-38. Even this extrinsic evidence supports Mears’ proposed construction:

**[S]patial light modulator (SLM)** a device that alters both the spatial and temporal character of a light beam. A three-port device with input, readout, and control or modulation ports. Modulation signals can be applied either electrically, i.e., an electrically addressed spatial light modulator, or optically, i.e., optically addressed spatial light modulator (ECF Docket No. 44-2 at 35);

**[S]patial light modulator in optical computing** a device for modulating amplitude or phase of light passing through it (*id.* at 36); and

**spatial light modulator** An object, device, or transducer which serves to modulate a laser beam so as to input data into a computer system utilizing holographic storage (*id.*).

In light of all of the evidence cited by both parties, the proper construction of “spatial light modulator” is that proposed by Mears.

### **III. Conclusion**

For the foregoing reasons, the Court should adopt the constructions of the disputed limitations in dispute proposed by Mears.

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**CERTIFICATE OF SERVICE**

I hereby certify that counsel of record who are deemed to have consented to electronic service are being served this 22nd day of June, 2015, with a copy of this document via the Court's CM/ECF system per Local Rule CV-5(a)(3). All other counsel of record not deemed to have consented to electronic service were served via electronic mail on this same date.

/s/ George C. Summerfield  
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